

## **Quality controls in advanced applications: fMRI and diffusion imaging**

A well-functioning MRI scanner lies at the very heart of any application, may it be scientific or clinical. An efficient program for quality controls that enable comparisons between scanners between different sites, or for the same scanner across time is helpful, if not necessary. For fMRI and diffusion imaging, gradient performance plays a pivotal role, since these applications often involve rapid imaging based on the echo-planar technique. In this lecture straight-forward methods for verifying scanner quality in that context will be described.